

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : SANYO ELECTRIC CO LTD

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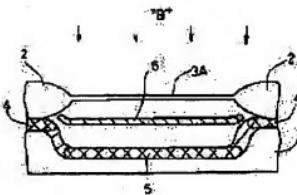
(72)Inventor : OKABE YUUSHIROU

(54) MANUFACTURE OF SEMICONDUCTOR DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To attain a high threshold voltage with low ion implantation, without causing degradation of isolation characteristic.

SOLUTION: Boron ions (11B+) are implanted under conditions for penetrating an LOCOS oxide 2 deposited on a P-type silicon substrate 1, in order to form a channel stopper layer 4 beneath the LOCOS oxide 2 of the same time as with a first channel ion implantation layer 5 in a deep region within the substrate 1. Subsequently, boron ions (11B+) are implanted from above the substrate 1 under conditions of not penetrating the LOCOS oxide 2, in order to form a second channel ion implantation layer 6 beneath a region for forming a diffusion layer in the substrate which is shallower than the first channel ion implantation layer 5.



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を示す筋の断面である。左の半導体装置の動作方針
[図5] 本明細書の半導体装置の動作方針左
を示す筋の断面である。
[図6] 本明細書の半導体装置の動作方針左
を示す筋の断面である。右の半導体装置の動作方針
[図7] 本明細書の半導体装置の動作方針右
を示す筋の断面である。
[図8] 本明細書の半導体装置の動作方針右
を示す筋の断面である。
[図9] 本明細書の半導体装置の動作方針左
を示す筋の断面である。
[図10] 本明細書の半導体装置の動作方針右
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[図18] 本明細書の半導体装置の動作方針右
を示す筋の断面である。

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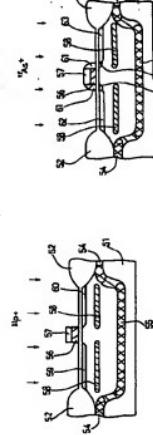
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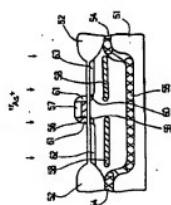
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[図1.2]



[図1.3]



[図1.4]

